

DISTRICT SURVEYORS' FEES.

SIR,—I beg to lay before you an idea that has arisen in my mind for making the fees charged for alterations to buildings more consistent with the amount of work done. The idea arose in my mind from the frequent complaints made by builders of the inconsistency, and, too frequently, the exorbitance of the fees they are charged by district surveyors for alterations. How often do we hear builders complain of being charged a fee of thirty shillings for merely raising the chimney of a second-rate building? yet, by referring to the Act, you will find that the district surveyor charging such a sum made a legal claim; though, had the same amount of work been done to a fourth-rate building, notwithstanding his trouble would have been equally as great, he could only have claimed ten shillings. I will not say that it is the practice of every district surveyor to charge the full fees in all cases, yet, unfortunately, there are some who, carrying out the letter more than the spirit of the law, do so; whilst, however, the above inconsistency exists, nothing further is wanted to prove to your readers the necessity of a change.

I would have time the means of regulating the fees charged for alterations. Nothing, in my opinion, could be a surer index of the amount of work done than the time spent in doing it. Under this plan, then, I would have the fee for alterations to a building of any rate that were completed within seven days from the commencement of the work (which should be, as now, two days after the date of the notice), ten shillings. Thus, for many small jobs, such as the raising a chimney shaft, the restriping and retilling part of a roof, which scarcely ever take more than seven days in performing, a fee of ten shillings could only be charged; but which would, at the same time, amply compensate the district surveyor for the one survey only he would, most likely, find it necessary to make in this instance. For an alteration that took more than seven days, but not more than fourteen, a fee of a guinea. Under this head, the fixing of new shop fronts, and such like works, would come; for which a fee of a guinea is moderate and reasonable. For an alteration that took more than fourteen days, but not more than twenty-one, a fee of one pound ten shillings. Additions to buildings, such as wash-houses, and rooms made for increased accommodation, could be erected in this time, at least as far as the Act is concerned, and for which a fee of thirty shilling would be likewise moderate. Lastly, for an alteration that was not completed within twenty-one days, a fee of two guineas. There should be, in my opinion, no higher fee for alterations than two guineas. The above table only applies to alterations made to one building; when alterations were made to more than one building, it should be legal to charge for the alterations made to each building according to the above ratio. I am, Sir, &c.

May 18, 1847.

L. H. I.

MEANS OF LESSENING ATMOSPHERIC RESISTANCE TO RAILWAY TRAINS.

Is a brochure just published by Weale, High Holborn. Mr. H. Bessemer proposes, instead of increasing the size, power, and consequent expense of railway engines, to diminish the resistance they have to overcome, and thereby to reduce the power required to propel a given train much below the present standard of duty.

Pointing out how we have obtained from the direct experiments of persons of the highest authority, a most indisputable confirmation of the fact, that at the high rate of travelling now common on all lines throughout the kingdom, by far the greater portion of the required power of an engine and its cost of working is due to the resistance of the atmosphere; and having, as he conceives, clearly demonstrated this much—that the resistance of the atmosphere to railway trains is exerted on the ends of each of the carriages forming a train, and amounts in each case to four-tenths of the power exerted on the first, and also, that by filling the intermediate spaces between the carriages, this

pressure on them will be most materially diminished; he thus develops the means which he recommends for lessening that resistance. "In order to carry out practically the results of my experiments," says he, "I have constructed a hood or covering of leather, gutta percha, or any other like flexible and durable material, similar to the hood of a breeches or hooded cab. The frame of this hood is attached by hinges to the projecting head of the buffer, and properly strengthened from within by diagonal braces. The upper part may be moved up or down on carriage-head cranks, and with suitable springs, made to assume either an erect or a sloping position, so that when the carriages are not used, the hood may be thrown back. But when several such carriages are required to form a train, they are first connected in the usual manner, and the carriage-hoods then thrown up."

They thus come in contact with each other, and being attached to the buffers, they yield to any pressure of the carriage, while by means of the crank-head levers and springs, they will reach and keep continually the spaces between the carriages closed, whatever may be the position of the buffers, and so prevent the atmosphere from acting on the ends of the carriages. The train is at the same time provided behind with a pointed or wedge-shaped carriage. "In order still further to carry out the principle of diminishing the atmospheric resistance, I also cover with thin sheet metal, or other suitable material, the entire under surface of the carriage frames, and thus prevent any obstruction from the transverse portions of the framing, and various parts which project below the carriage."

Among the many advantages to be derived from the adoption of this plan, he adds, "It may suffice to mention generally, that it will enable many engines to be brought into work that are now out of use on account of deficiency of power; reduce the weight, size, and cost of all new engines; diminish the quantity of fuel in proportion as the load is lessened; give facilities of the most rapid transit; and render two engines for passenger trains wholly unnecessary."

NOTES IN THE PROVINCES.

LONG MANSFELD is to lay the first stone of the Fishmongers' and Posters' Asylum at Woodgreen, Hornsey, about the middle of next month.—The first stone of a new church at Henley-upon-Thames was to be laid on Whit-Tuesday.—The spire of the new church at Weston-super-Mare is now completed. The tower, including the spire, is 115 feet high.

The restoration of St. Nicholas's Church, Yarmouth, which was temporarily delayed, is to be forthwith resumed, an arrangement having been made with the churchwardens and the architect of the restoration committee. During the reparations a quantity of stained glass was found on the recently-discovered staircase at the north side of the organ.—It has been resolved forthwith to ascertain from competent judges the present state or stability of St. Thomas's Church, Newport, I.W., with reference to its proposed restoration.—A new literary and scientific institution has been established at Newport.—A college is to be built at Jersey. The first subscription towards the end in view was the sum of £77, which ought to be able to build a college of itself by this time, interest and compound interest included, inasmuch as the subscription-list for this very college was headed first of all by a contribution to the amount now stated from his Majesty Charles I. at the time when the pier was built at Jersey.—A large Roman Catholic temple is now being built at Guernsey, with money supplied, it is said, by France. The stones are imported from Caen, but the Guernsey granite also figures in the work.—A lighthouse is forthwith to be erected on the 'Hishop,' a dangerous rock, forming the most westerly of the Scilly Islands.

The carpenters and masons in Taunton have struck work for an advance of wages.—The Beekford six-and-thirty thousand pounds tower at Bath is to be turned, by the 'beer-house keeper' who has purchased it, into a tea-drinking place for pleasure parties! *Sic transit gloria mundi.*—The Cheltenham Gas Company have offered to supply all the gas to public and private lamps at one uniform charge of 4s. 6d. per 1,000 feet, instead of at their present

scale of 3s. 6d. to the public and 6s. 3d. to the private consumer.—Antiquaries are informed by advertisement in the *Hereford Times* that, in consequence of contemplated alterations, the upper portion of the east window in St. Peter's Church, Hereford, containing several feet of very ancient painted glass, and to be seen in its present position only till 26th inst., is to be sold.—The streets of Worcester are said to be in a "dangerous state of darkness from nightfall till dawn," although the New Gas Company, in negotiating for the supply of the public lamps with the City Commissioners, offered to "light up the streets during the whole year for the same sum per lamp which was charged by the Old Gas Company for nine months only;" an offer which the commissioners declined,—on what rational grounds we know not,—thus, however, taking on their own heads the responsibility of plunging the streets into a state which, none, one would think, but thieves and other evil-doers can be benefited by,—unless, indeed, it be the Old Gas Company itself, who certainly also benefit thus by the darkness rather than the light.—Studley Castle, Warwickshire, is to be "knocked down" next month by auction, like the Beekford Tower, but not to such base uses, 'tis to hope.

Complaints having been made respecting the delay in the return of the subscriptions raised for the purpose of establishing public baths, says the *Birmingham Gazette*, in their appropriation to the providing of places of recreation, we are requested to state that the committee have not received the purchase-money from the town council, and that the payment of this money is waiting only for the solicitors to complete the title and conveyance from Sir Thomas Gooch of the land in Kenilworth street. It is understood that when this business is brought to a close, the town council will be prepared to carry on the work [which work] with vigour.—A range of almshouses is now erecting near Lincoln Minster, at the expense of the Rev. Richard Waldo Sibthorp.—Nearly eighty of the Lincoln bricklayers, who have been earning 4s. a day, have struck work for an advance of 6d.—The quarrymen at Quorndon and Mount-cornell, too, lately stood out for an advance, which they obtained in a few hours, as the granite trade is very brisk.—Other strikes also are noticed in our Railway Journal.—The site of a new town hall for Loughborough is said to be fixed at the top of the Market-place. The *Nottingham Review* says this is too good to be true.—The foundation stone of the new markets at Doncaster was to be laid on Whit-Monday, by Sir William B. Cooke, Bart., first mayor of the new municipal borough.—It is expected that the erection of a church at the Bank Top, Darlington, will soon be commenced, the plans having been approved of.—A permanent theatre is to be erected at Gateshead, for Mr. Thorne, by Mr. C. J. Pearson, builder.—The Whittle Dean Water Company are hard at work at Gateshead, breaking up and replacing the pavement with creditable rapidity, so as to give very little interruption to the traffic.—The Commissioners of Woods and Forests are about to repair the venerable abbey of Deerferme.

THE HEALTH BILL.

A PETITION from Birmingham in favour of Lord Morpeth's Bill is in course of signature. It sets forth,—"That the principal improvements required are—a constant, universal, and cheap distribution of pure water; complete street and house drainage; removal of the refuse, and prevention of any accumulation of decomposing filth. That these improvements would diminish sickness, suffering, and death, and obviate the severe privations and misery entailed on widows and orphans, owing to premature loss; an occurrence which is one of the most distressing and frequent results of the present want of a systematic measure for improving the health of towns. And that the consolidation of the several authorities under which the paving, lighting, cleansing, and sewerage of towns are now intrusted, would tend to introduce greater efficiency, as well as greater economy."

A petition to the same effect has been read by the inhabitants of Kingston-upon-Hull. The editor of *The Hull Packet* remarks, "If the Registrar General be right—if it be possible to make the inhabitants of towns

* See the *Illustration of the Atmosphere to Railway Trains*, and a means of lessening the same; together with the amount of some improvements in Railway Carriage Axles. By H. Bessemer, C.E. Weale.